

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
29 April 2004 (29.04.2004)

PCT

(10) International Publication Number  
WO 2004/036825 A1

(51) International Patent Classification<sup>7</sup>: H04L 12/14 (74) Agent: DR LUDWIG BRANN PATENTBYRÅ AB; P.O. Box 17192, S-104 62 Stockholm (SE).

(21) International Application Number:

PCT/SE2003/001122

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SI, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 27 June 2003 (27.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/418,547 15 October 2002 (15.10.2002) US

(71) Applicants (for all designated States except US): TELEFONAKTIEBOLAGET LM ERICSSON (PUBL) [SE/SE]; S-126 25 Stockholm (SE). HEGDAHL, Tormod [NO/NO]; Moserabben 14, N-0752 Oslo (NO).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HARNESK, Magnus [SE/SE]; Sköldvägen 35B, S-186 40 Åkersberga (SE). LEMARK, Jan [SE/SE]; Lindhagensgatan 63, S-112 43 Stockholm (SE). KÖRLING, Martin [SE/SE]; Skuggvägen 12, S-191 45 Sollentuna (SE).

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

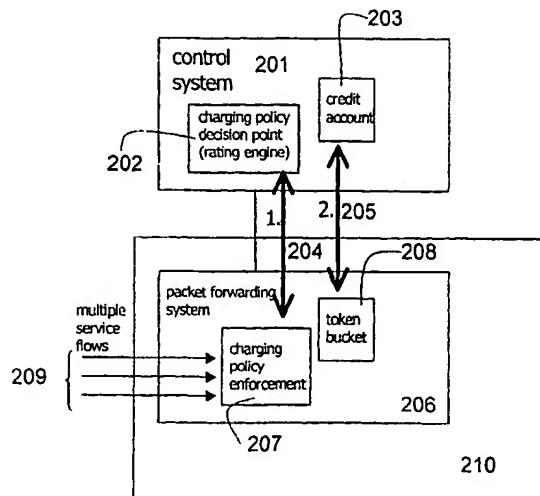
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

{Continued on next page}

(54) Title: SYSTEM FOR PROVIDING FLEXIBLE CHARGING IN A NETWORK



WO 2004/036825 A1

(57) Abstract: The present invention relates to arrangements for charging in a packet switched network. Packets are charged differently dependent on which service flow the packets belong to. The charging system comprises a control system and a serving element residing in a packet forwarding system wherein said control system comprises an account function adapted to manage an account of at least one user and a charging policy decision point arranged to calculate a charging policy for allowed services for the at least one user. Moreover, said serving element comprises a token bucket per user adapted to store reservations received from the account function of the user associated with the token bucket and a charging policy enforcement point arranged to perform charging for a plurality of the allowed services by reducing the stored reservation of the token bucket according to the calculated charging policy.